

## 7. FORAGING ASSOCIATIONS AND INTERACTIONS IN WOODPECKERS

In the course of my studies on woodpeckers at the Peechi-Vazhani Wildlife Sanctuary, Thrissur district, Kerala, I found that except at the peak of summer, when mixed foraging flocks of birds were less common, woodpeckers were invariably associated with such flocks. In fact, I could locate woodpeckers by looking out for mixed foraging flocks. Up to six, at times even seven, of the eight species of woodpecker in my study sites were seen in a single flock, and often three or four species were seen foraging on the same tree.

Table 1 gives data for two years, showing seasonal variations in the woodpeckers' association with several mixed foraging flocks (as a percentage of total observations). The value in parentheses represents the number of observations. It may be seen from this Table that the woodpeckers' association with mixed foraging flocks declines with the onset of the dry season (summer), and is lowest during the late dry season. Fewer mixed foraging flocks were seen in the dry season, as many constituent species were engaged in nesting in this period. This appeared to result in fewer instances of woodpecker association with the mixed flocks.

In their association with the mixed foraging flocks, woodpeckers were often seen pursued by drongos — greater racket-tailed (*Dicrurus paradiseus*), bronzed (*D. aeneus*) and white-bellied (*D. caerulescens*). Often, the lesser golden-backed woodpeckers *Dinopium benghalense* were followed by racket-tailed drongos that usurped their foraging sites or forced them to give up the insect prey that they had extracted from under the bark of the tree. Most often the drongos succeeded. However, the greater golden-backed woodpecker *Chrysocolaptes lucidus* often stood its ground, and prevented the drongos from kleptoparasitising it.

I have also once seen a racket-tailed drongo displacing a foraging yellow-fronted pied (Mahratta) woodpecker *Dendrocopos mahrattensis* and extracting an insect larva from the site where the latter had been excavating. A brown-capped pygmy woodpecker *Dendrocopos nanus* with an insect in its beak was once seen being chased by the bronzed and white-bellied drongos.

Table 1: Woodpecker association with mixed foraging flocks

Species	Season		
	Late wet (Sept.-Nov.) % (n)	Early dry (Dec.-Feb.) % (n)	Late dry (Mar.-May) % (n)
PY (1991-92)	90.9 (33)	84.2 (38)	23.5 (34)
PY (1992-93)	85.7 (14)	67.6 (34)	30.8 (8)
MA (1991-92)	100.0 (32)	87.2 (39)	25.9 (27)
MA (1992-93)	84.6 (13)	73.5 (34)	21.4 (14)
HS (1991-92)	72.0 (25)	84.2 (19)	23.1 (13)
HS (1992-93)	83.3 (6)	38.9 (18)	35.0 (20)
YN (1991-92)	90.0 (10)	71.9 (32)	35.3 (17)
YN (1992-93)	100.0 (5)	86.7 (15)	38.5 (13)
RU (1991-92)	76.2 (21)	64.0 (25)	35.3 (17)
RU (1992-93)	100.0 (5)	50.0 (8)	30.8 (13)
GB (1991-92)	85.0 (40)	86.3 (51)	20.7 (39)
GB (1992-93)	94.7 (19)	85.3 (34)	33.3 (24)
MG (1991-92)	65.0 (20)	56.4 (39)	5.3 (19)
MG (1992-93)	50.0 (6)	57.1 (28)	21.7 (23)

PY = *Dendrocopos nanus* (Brown-capped pygmy woodpecker)

MA = *Dendrocopos mahrattensis* (Yellow-fronted pied woodpecker)

HS = *Hemicircus canente* (Heart-spotted woodpecker)

YN = *Picus chlorolophus* (Small yellow-naped woodpecker)

RU = *Celeus brachyurus* (Rufous woodpecker)

GB = *Dinopium benghalense* (Lesser golden-backed woodpecker)

MG = *Chrysocolaptes lucidus* (Greater golden-backed woodpecker)

Apart from associations leading to usurpation of foraging sites or food by drongos, woodpeckers were also followed by birds (including drongos) for insects that were disturbed by them in their process of moving about on the tree trunk or branches. Racket-tailed drongos, red-vented bulbuls *Pycnonotus cafer*, grey-headed starlings *Sturnus malabaricus*, red-whiskered bulbuls *Pycnonotus jocosus* and jungle babblers *Turdoides striatus* were seen following the lesser golden-backed woodpecker *Dinopium benghalense* and little scaly-bellied green woodpecker *Picus xanthopygaeus* foraging on termites, sometimes as close as a metre or so from the woodpeckers. Though the woodpeckers generally never reacted to the presence of these birds, on one occasion I noticed a lesser golden-backed woodpecker lunging at a red-vented bulbul that strayed quite close to it.

Woodpeckers tolerate occasional piracy by the aggressive drongos because of the advantages they enjoy in the form of protection from predators and early warning signals, which they receive from other birds in a mixed foraging flock (Sullivan 1984, Hogstad 1991). I have seen bronzed drongos chasing shikra (*Accipiter badius*) and other raptors that stray within the proximity of mixed flocks.

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## 8. EXPLOITATION OF SEA TURTLES ALONG THE SOUTHEAST COAST OF TAMIL NADU, INDIA

(With one text-figure)

Five species of sea turtles, the leatherback *Dermochelys coriacea*, hawksbill *Eretmochelys imbricata*, olive ridley *Lepidochelys olivacea*, loggerhead *Caretta caretta* and green turtle *Chelonia mydas* occur in the Indian seas. All of them are found along the southeast coast, especially in the Gulf of Mannar (Kar and Bhaskar 1995). Turtle fishing was practised in this region for ages, and chelonians were exported to Sri Lanka and other countries until a couple of decades ago (Agastheesapillai and Thiagarajan 1979, Frazier 1980). In the present paper, we report the exploitation and some aspects of the ethnozoology of sea turtles along the southeast coast of Tamil Nadu, India. We surveyed

most of the coastal villages covering the entire southeast coast (c. 250 km; Fig. 1), from Cape Comorin (now Kanya Kumari; 8° 4' 40" N, 77° 33' 4" E) to Dhanushkodi (9° 9' 9" N, 79° 26' 46" E) during November 2001. We interviewed the fishermen for information on the occurrence of turtles, their common names and exploitation by locals. Village markets and garbage dumps were also checked for live turtles or shells to quantify the exploitation.

Altogether, we surveyed 29 localities, and obtained 48 cases of sea turtle exploitation in 13 localities. This includes all species except the loggerhead. About 94% of the turtles exploited